## Amendments to the Specification

The specification had not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation was requested in correcting any errors of which applicant might become aware in the specification.

Please replace paragraph [11] with the following amended paragraph:

Refer now to FIG. 1 wherein an AC MOSFET switch 110, including anti-parallel diodes 112 and 114, is illustrated, in accordance with one embodiment. For the MOSFETs 142 and 144 illustrated, the sources of the MOSFET devices are coupled at junction 102. In one embodiment, MOSFETs 142 and 144 are power MOSFETs. In addition, the gates are electrically coupled at junction 104. These couplings are to facilitate the operation of the two MOSFETs 142 and 144 as a single AC MOSFET switch. Thus, by applying a gate to source voltage, V.sub.GS, greater than the threshold voltage, V.sub.TH, to the two MOSFETs 142 and 144, both MOSFETs conduct current 120.

Please replace paragraph [12] with the following amended paragraph:

Also illustrated in FIG. 1 are two diodes 112 and 114. These diodes 112 and 114, which may be parasitic or explicit, are anti-parallel to their respective MOSFETs. As described in further detail below, these diodes 112 114 may be utilized to bypass the intrinsic anti-parallel diodes of the MOSFETs. Thus, as illustrated, the anodes of the diodes 112 and 114 are coupled to the sources of the diodes' respective MOSFET and the cathodes are coupled to the respective drains.

Please replace paragraph [13] with the following amended paragraph:

FIG. 1 also illustrates the AC MOSFET switch in use in controlling power to a load. As previously mentioned, AC MOSFET switch 110 comprises two MOSFETs 142 and 144. AC MOSFET switch 110 controls current 120 through load 130. This may be accomplished by switch control circuit 140 which applies the gate-source voltages for the two MOSFETs 142 and 144 forming the

AC MOSFET switch 110. In the embodiment illustrated, charge pump biasing circuit 150 supplies current to switch control circuit 140 from line (L) 172 and neutral (N) 174 connections of the AC power source.

Please replace paragraph [14] with the following amended paragraph:

FIG. 2 illustrates a more detailed look at an AC MOSFET switch, utilizing P type MOSFETs, including intrinsic parasitic diodes 232 and 234 of the MOSFETs 242 and 244, in accordance with one embodiment. Also illustrated are antiparallel diodes 212 and 214 which may be utilized to bypass the intrinsic anti-parallel diodes 232 and 234 of the MOSFETs. Note that the sources of both MOSFETs 242 and 244 are coupled 204 to each other. In addition, the gates of both MOSFETs 242 and 244 are coupled 206 to each other. When a voltage, V.sub.SG 280 less than a threshold voltage V.sub.TH is applied, the MOSFETs 242 and 244 will be "turned-off" and the internal reverse biased PN junctions will substantially prevent current from flowing through the MOSFETs.

Please replace paragraph [15] with the following amended paragraph:

When a voltage, V.sub.SG 280 greater than a threshold voltage V.sub.TH is applied to the common sources and gates of MOSFETs 242 and 244 are turned on to facilitate the flow of current through the AC MOSFET switch. Note that current will flow in the reverse direction in MOSFET 242 or 244 depending on the polarity of the AC voltage source. That is, in the reverse direction as is normally used in DC circuits, that is drain to source in an N type MOSFET or source to drain in a P type MOSFET. The reverse current flow causes no problem as the MOSFET transistor is truly a bidirectional device, that is, current may flow from drain to source or source to drain once the proper gate voltage is applied and the conductive channel forms. Normally, during reverse polarity across the source/drain of a MOSFET, an internal PN junction, represented by parasitic diodes 234 and 232 in FIG. 2, will eventually turn on allowing current 271 to flow. Note that parasitic diodes 234 and 232 are not separate from the MOSFET 244 and 242; e.g. parasitic diode 234 is a PN junction that is part of the structure of transistor 244. Once the gate voltage is removed the parasitic

diode conducts during reverse current flow which makes a single MOSFET unsuitable for the control of alternating current 271 or 273. The common source configuration of MOSFET 242 and 244 of FIG. 2 results in one of the parasitic diodes in a reverse biased state which substantially prevents current flow through the parasitic diodes 232 and 234 when the MOSFETs are in either the conducting or nonconducting states.

Please replace paragraph [16] with the following amended paragraph:

Referring again to FIG. 1, switch control circuit 140 and charge pump circuitry 150 are utilized to provide control for the application of the voltage to the gates of MOSFETs 142 and 144. In the embodiment illustrated, switch control circuit 140 may be an externally controlled pulse width modulation circuit. In the embodiment illustrated, charge pump 150 utilizes the AC line to power the pulse width modulation circuitry. In addition, the frequency of the modulated control signal may be fixed, whereas the duty cycle of the modulation, as described below, is utilized to determine the power to be delivered to the load 130. In an alternative embodiment the gate and source of the AC MOSFET may be driven by a circuit which has a minimum conduction time combined with a variable frequency to determine the power to be delivered to the load 130.